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RATING SCALES FOR PUPILS' DYNAMIC QUALITIES: STANDARDIZING METHODS OF JUDGING HUMAN CHARACTER

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The principal aim of this article is to report a new type of measuring instrument for certain important traits in high-school students. In doing so, however, the writer wishes to suggest an outline scheme of thinking concerning the measurement of mental processes and to point out the direction in which new studies of measurement are needed.

Educational measurement as a movement has eventuated.—It is accepted generally by public-school administrators. More than one hundred educational tests and scales are being used in the public schools of the country. Some of these scales have considerable scientific validity. Many of them, however, are almost valueless as scientific instruments. It is important to evaluate the direction in which such a movement is going. To the present time there has been much publication and use of tests, but little real evaluation.

A good illustration of this fact is found in our current methods of classifying tests. We speak of tests for arithmetic and for language, spelling tests, tests of reading ability, geometry tests, etc. It is one of the theses of the present writer that we shall direct our movement properly only through a careful *evaluation of the mental processes for which standardized tests are designed.* Clear thinking about the validity of educational scales will be contributed to largely by clear-cut analysis of the mental processes which these scales are constructed to measure.

Tests for habit formation and "information" but not for "thinking."—There are definite reasons for being concerned about the tangent which the educational measuring movement is taking at the present time. Of the more than one hundred published educational tests, less than ten deal with the higher thought processes—processes of reasoning, analysis, logical thinking, problem-solving,

etc. Only one deals with the appreciational and enjoyment outcomes from school instruction.

Let us survey the situation more concretely. Diagram I sets forth a classification of mental abilities and processes. The study of such a diagram shows clearly the direction in which educational measurement is moving. Note the main captions of the scheme: first intelligence—general mental capacity. This represents primarily one's inherited mental organization (paralleling this, of course, one's inherited physical organization). For the classification and evaluation of *educational* tests, however, we are not so much concerned with the *general* mental ability of an individual as we are with the traits which are resultants of training operating on intelligence and physical organization. The writer is aided in his own thinking by throwing these traits into four categories.

First—Traits in which *intellectual* elements predominate.

Second—Traits in which *both intellectual and emotional* elements predominate.

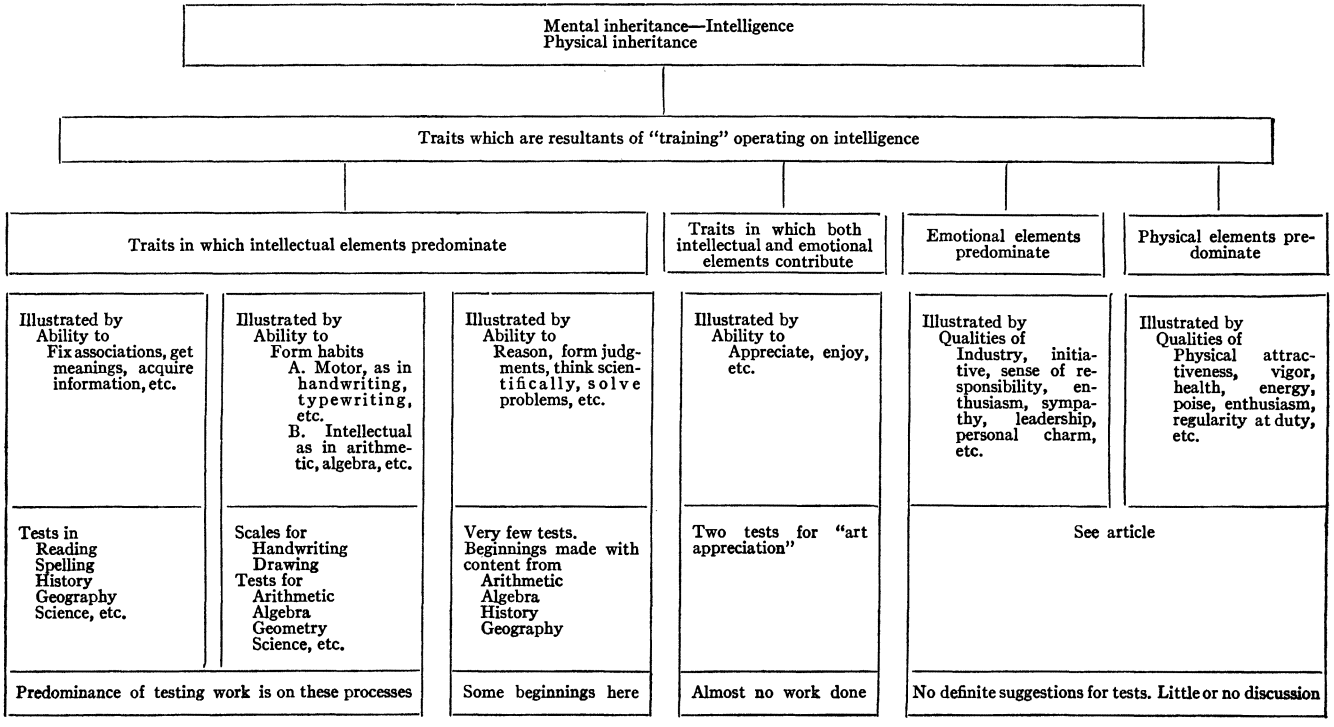
Third—Traits which are primarily "dynamic" and in which the *emotional quality is clearly uppermost.*

Fourth—Traits in which *physical* elements predominate.

What does the study of Diagram I tell us about the measuring movement?—It tells us that we have been concerned in our ten years of development with the measuring of purely intellectual abilities, and, further, that these intellectual processes have been of the "routine" habitual sort. It tells us that we have been concerned with tests for ability to "fix meanings," to "acquire information," to "get ideas"—likewise with the development of muscular and intellectual technique. Of our own hundred scales, the vast majority deal with these "automatic" mental processes. We have many tests for reading ability; several for skill in handling the four fundamentals in arithmetic; a number for ability to acquire information in history and geography; several for automatic skill in spelling foundational lists of words; a number for ability to manipulate formal elements in algebra and geometry; a number of scales for measuring motor co-ordination in handwriting.

Little study of "how to test higher thought processes."—Very little attention, however, has been paid even to those intellectual traits in which the reasoning or problem-solving element predominates. Two or three verbal problem tests in arithmetic and algebra, one

DIAGRAM I


Mental inheritance—Intelligence
Physical inheritance
Traits which are resultants of "training" operating on intelligence
Traits in which intellectual elements predominate
Traits in which both intellectual and emotional elements contribute
Emotional elements predominate
Physical elements predominate
Illustrated by Ability to Fix associations, get meanings, acquire information, etc.
Illustrated by Ability to Form habits A. Motor, as in handwriting, typewriting, etc. B. Intellectual as in arithmetic, algebra, etc.
Illustrated by Ability to Reason, form judgments, think scientifically, solve problems, etc.
Illustrated by Ability to Appreciate, enjoy, etc.
Illustrated by Qualities of Industry, initiative, sense of responsibility, enthusiasm, sympathy, leadership, personal charm, etc.
Illustrated by Qualities of Physical attractiveness, vigor, health, energy, poise, enthusiasm, regularity at duty, etc.
Tests in Reading Spelling History Geography Science, etc.
Scales for Handwriting Drawing Tests for Arithmetic Algebra Geometry Science, etc.
Very few tests. Beginnings made with content from Arithmetic Algebra History Geography
Two tests for "art appreciation"
See article
Predominance of testing work is on these processes
Some beginnings here
Almost no work done
No definite suggestions for tests. Little or no discussion

preliminary test for thought power and for character judgment in history, one reading test which can be regarded primarily as an intelligence or problem-solving test, mediocre attempts to standardize the difficulty of thought questions in geography—such illustrations are practically all inclusive of the extent to which we have attempted to measure generalized intellectual abilities.

No tests for appreciational and "dynamic" traits.—The diagram shows, furthermore, that we have almost completely neglected the traits in which intellectual and emotional elements both contribute. We have only one example in the field of tests for art appreciation—the Whitford tests. When one turns to those important "dynamic" qualities in which emotional elements predominate, one finds no tests and little or no discussion.

IMPORTANT DISTINCTION: MEASUREMENT OF EDUCATIONAL "PRODUCTS" VERSUS MEASUREMENT OF EDUCATIONAL "PROCESSES"

One gets a clearer idea of the present status of measurement when one studies our educational measuring procedure from another angle. Note that of the traits for which tests are available the process of measurement is altogether that of *measuring an educational product.* In no instance does it involve the *observation of a process.* Skill in handwriting is measured by direct comparison of the product of the pupil's learning with a standardized set of specimens. Spelling ability, arithmetical skill, achievement in algebra, etc.—all these are measured by comparison with an objective right or wrong standard. This distinction is important. It is this distinction of product versus process that is the basis of this article.

It is not so, however, when one deals with the dynamic qualities of initiative, enthusiasm, tact, ability to meet people easily, industry, spirit of co-operation, interest in what others are doing, qualities of leadership, etc. These attitudes and modes of behavior are fundamentally dynamic. They provide the impulse to conduct. They doubtless determine the conduct of the man on the street more completely than do the intellectual functions. Perhaps the most striking characteristic of the average man is that of acting upon "impulse."

These dynamic traits, therefore, must be measured, but how?—Not by scaling the product, for the product of one's enthusiasm, his ability to meet people easily, his leadership, his spirit of co-operation, and his personal and social qualities, are so long in eventuating that their definite measurement in public schools is impossible. Certainly only at remote intervals and by most indirect processes can such important traits be so measured.

Necessity for standardizing methods of observing human procedure. Such traits have to be measured by observing human activity. Measurement now becomes a matter of "judgment" of human character. The perfection of measuring instruments, therefore, consists in standardizing methods of judging.

Methods of judging pupils' qualities are unstandardized and unreliable.—During the past fifteen years scores of investigations have been reported which establish beyond all doubt the great unreliability of present methods of rating pupils' qualities, either those which are intellectual or the dynamic emotional ones. These investigations of "marks" prove the tremendous variability, inconsistency, and unreliability of the marks which have been given through ordinary unstandardized methods. (A standardized procedure in "marking" would consist at the present time in those instances in which objective tests could *not* be used, of (1) ranking pupils, and (2) assigning marks to them in accordance with a theoretical distribution curve.)

The movement to standardize the rating of teaching efficiency.—To the writer's knowledge, there are no published reports proposing the standardization of methods of rating pupils' dynamic qualities. Since 1910 there has been considerable discussion, however, of the standardization of methods of rating teachers' dynamic qualities. We have had the investigations of Elliott, Boyce, Ruediger and Strayer, Beatty, the work of the New York Bureau of Municipal Research, and some others. There are a few outstanding characteristics in the rating devices proposed by these workers. One important innovation is that of enumerating the traits on which a teacher is to be rated—listing the human qualities which are essential for success. In this respect, the movement has contributed helpfully. As for the procedure of rating on these qualities, widely different methods have been proposed. Elliott proposed a long list of qualities with each group of traits and each particular trait assigned

a given number of numerical points, the total being 1,000. On such a scheme a teacher is rated against an arbitrary set of points, the total indicating her position in a group. Boyce uses a similar long list of traits, with some clearer definition, but without applying weights to the separate qualities. He, Beatty, and others who have worked in this field suggest that for each subordinate quality the teacher be assigned to a given group, "excellent," "superior," "medium," etc. In Boyce's scheme, the number of groups is ten; in Beatty's, five.

The enumeration of particular qualities, therefore, together with an attempt to assign weights or to locate in groups represents the status of the movement to standardize the judging of human qualities. Experiments have been reported, with the use of such scales as Elliott's, which show almost zero correlations between ratings made carefully with the scale by different competent judges who have observed the work of the same teacher, sometimes at the same time. Certainly we have little reason to believe that these rating scales on teachers lead to numerical ratings, the reliability of which is great.

The probable error of ratings on such scales is too large.—The most adequate application that could be secured of such rating scales would, in the writer's judgment, result in a Probable Error on a single rating (on a scale of one hundred units) which would be between 10 and 15 points. An illustration will show what this means. Suppose a teacher has been marked 60. If the Probable Error of this rating is 10, it means that the chances are only about 21 to 1 that this mark of 60 is within 30 points of the true mark. Of course such a rating is absurd. From three months' careful investigation of the Army Rating Scale in 1918, the writer has collected evidence which completely substantiates such a statement.

TWO FEATURES TO NEW SCALE PROPOSED HEREWITH:

I. SELF-IMPROVEMENT OF STUDENTS THROUGH SELF-RATING

II. MEASUREMENT BY DIRECT COMPARISON

It is clear, therefore, that we need new methods of rating dynamic qualities, both for students and for teachers.—There are presented in the remainder of this article two suggestions for the rating of high-school students. One has to do with the important problem of

self-improvement on dynamic qualities as well as the rating of students on these qualities by their teachers and principal. The second has to do with a new type of rating scale. Its use leads to a numerical score and one of which the validity is much greater than of those which have been experimented with to the present time.[1]

I. SELF-IMPROVEMENT THROUGH SELF-RATING

If we are to secure permanence in one's development of dynamic qualities, it must be through a type of self-improvement. The first step in self-improvement is to be constructively critical of the extent to which one exhibits certain traits. The assumption is worth making that the clear recognition of one's deficiencies does lead to definite self-improvement. There should be available in the administrative records and devices of a school system methods of acquainting pupils with the qualities which the school and the world at large regard as important. The writer presents on pages 344 and 345 a suggested rating scale for judging high-school students which does this very thing.

It consists of two forms. The keynote of Form A is "Self-Improvement Through Self-Rating." It provides a classification of the dynamic as well as the intellectual qualities of a student. It is suggested for the consideration of school administrators that each pupil should rate himself at least once each year. He should also be rated by each of his teachers and where possible by the principal. The form can be used by the student in analyzing his own qualities. It can be so used by the school, and also by the home. It is addressed to all three groups. It tells the student that "it is important that he stand high on these qualities, that he should rate himself by checking himself in one of three groups." It is concrete in that it asks him specific questions concerning what he does. It holds uppermost in his mind the direct question "to what extent do I do thus and so." However, its phraseology is designed primarily for the teacher, the principal, and the parent. Doubtless, if the pupil were asked to use this form without advice, a few of the questions would be difficult to answer on account of the terminology.

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[1] In a parallel article in the *Elementary School Journal* for May, 1920, the Rating Scale for Judging Teachers in Service is presented.

Name of Student _____
School _____
Class or Grade _____ Date of Rating _____

A Rating

FORM A—For

I. Ability to Learn— To Assimilate New Ideas	Low	Aver.	High
To what extent does he—			
1. Assimilate the material of assignments and class discussions:			
a. Understand directions the first time they are given..			
b. Does his thinking keep pace with the teacher's explanation, even anticipating some things that are said..			
2. Recall facts and principles which have been brought out in the earlier parts of the course...			
3. See relation of these to new phases of the work.....			
4. Tend to weigh statements of teacher and text book, not accepting the first idea that occurs, or is presented to him.....			
5. Ask intelligent questions.....			
6. Exercise mental initiative, discovering new problems and plan ways of working them.....			
Summary Rating.....			

II. Qualities of Industry and Attitude toward School Work	Low	Aver.	High
To what extent—			
1. Does he do school work regularly and on time.....			
2. Does his school work tend to equal the teacher's estimate of his real ability..... If not, is this due:			
a. To lack of industry.....			
b. To outside interests (social affairs, athletics, etc.).....			
c. To working to support himself.....			
d. To doing too much domestic work in the home.....			
3. Does he stick to a problem or project until it is completed....			
4. Does he respect disciplinary regulations.....			
5. Does he exercise control, thereby avoiding disturbances in the class-rooms and about the school.....			
6. Is his attitude toward teachers and school work one of hearty interest.....			
a. Is his lack of interest caused by being forced to attend school against his will.....			
Summary Rating.....			

III. Qualities of Leadership	Low	Aver.	High
To what extent—			
1. Does he exhibit an attitude of confidence in his own ability ...			
2. Does he exercise a wholesome influence in the school through his leadership.....			
3. Are his abilities of leadership due to his ability:			
a. To suggest practical ideas and to organize workable plans.			
b. To organize people successfully so as to carry out his plans.....			
c. To persuade others by presenting his point of view convincingly.....			
4. Have the faculty already recognized his qualities of leadership by selecting him for positions of responsibility in the school.....			
5. Is his lack of selection due primarily to his immaturity.....			
6. Do you think the pupil can learn to develop qualities outlined in 3 *a*, *b*, and *c*.....			
7. Is he chosen to office and given leadership in school activities *irrespective of his family and social position;* that is, to what extent is his leadership due to ability to organize plans and people and carry things through successfully.....			
8. Does he organize and lead in activities outside the school (boys' and girls' clubs, Y.M.C.A., Y.-W.C.A., church organizations, etc.).....			
Summary Rating.....			

SELF-IMPROVEMENT THROUGH SELF-RATING

To the STUDENT—Rate yourself on each quality on this form. It will be a first step in improving yourself. It is important that you stand high in these qualities.

To the PRINCIPAL or DEAN—Let the student rate himself on each question at least once a year. Let the teacher rate the student once each term. A valuable file of these cards can be kept in the office.

Let the teacher also construct a *Rating Scale* on *Form B* below and give each student a Numerical Rating on each group of qualities at least once each year. If the scale is constructed as directed on the reverse side of this card, the average of several teachers' ratings on a student will be a very reliable measure of the student's ability.

To the PARENT—Your son or daughter is rated by the world at large, and so by the school, on just such qualities as these. The student is asked to rate himself on these qualities because it will tend to make him improve himself. Your hearty interest in this method will make its use very effective.

RATING BY DIRECT

FORM B—The Rating Scale, containing the names of typical

(Primarily for Teachers and Principals to

I. Ability to Learn— To Assimilate New Ideas		
Best Student....	38	.....
Better than Average....	30	.....
Average.....	22	.....
Poorer than Average....	14	.....
Poorest Student....	6	.....
Summary Numerical Rating.....		

II. Qualities of Industry and Attitude toward School Work		
Best Student....	38	.....
Better than Average....	30	.....
Average.....	22	.....
Poorer than Average....	14	.....
Poorest Student....	6	.....
Summary Numerical Rating		

III. Qualities of Leadership		
Best Student.....	38	.....
Better than Average.....	30	.....
Average.....	22	.....
Poorer than Average.....	14	.....
Poorest Student.....	6	.....
Summary Numerical Rating.....		

Scale for Judging High School or College Students

SELF-IMPROVEMENT THROUGH SELF-RATING

analyzing and rating the student's qualities—by the student himself; by the school; and by the home.

(Rate by checking in one of three groups for each question)

Low	Aver.	High	IV. Team-Work Qualities	Low	Aver.	High	V. Personal and Social Qualities	Low	Aver.	High
			To what extent—				**To what extent—**			
			1. Does he enter heartily into school activities outside the class-room; take part in:				1. Is he personally likable (*i.e.*, is he interested primarily in what others are doing).....			
			a. School discussion clubs, as the Math. and History Clubs, etc.....				2. Does he recognize the importance of cleanliness in personal habits and neatness in dress.			
			b. Literary societies.....				3. Do other students regard him as one of them; that is, does he mix well; likewise not being kept aloof by his fellows.....			
			c. School social affairs.....				4. Is he tactful in getting along well with his fellows.....			
			d. School newspaper work.....				5. Does he appear to be learning how to meet people easily.....			
			e. School debating.....				6. Does he or she show a *sensible* attitude toward the other sex.....			
			f. Athletics.....				7. Is he scrupulously honest:			
			g. Dramatics.....				*a.* In his scholastic work.....			
			2. In his participation is he interested primarily in the welfare of the whole group (team, club, etc.) and not in nis own advancement.....				*b.* In his relations to his fellows.....			
			3. Is he loyal to his fellows in both what he says and does.....				8. Has he developed a sense of responsibility for carrying through projects:			
			4. If he does not participate, is this due to necessity for self support, domestic work at home, or physical disability.....				*a.* Which he starts himself.....			
			5. Does he give hearty *support* to school activities, even though he does not actively participate (*i.e.*, is he a "rooter").....				*b.* Which have been turned over to him to carry out.....			
			6. Does he shoulder responsibility for his own acts.....				9. Is he courteous and respectful to teachers and older people generally.....			
							10. Is he modest and unassuming with respect to his own abilities.....			
			Summary Rating				**Summary Rating**			

If desired, marks given student in School Subjects can be written here

Subjects	19..19..	19..19..	19..19..	19..19..	19..19..	19..19..	19..19..	19..19

COMPARISON

students who can be compared with the student to be rated.

give the students a Numerical Rating)

IV. Team-Work Qualities			V. Personal and Social Qualities		
Best Student.....	38	.....	Best Student.....	38	.....
Better than Average.....	30	.....	Better than Average.....	30	.....
Average.....	22	.....	Average.....	22	.....
Poorer than Average.....	14	.....	Poorer than Average.....	14	.....
Poorest Student.....	6	.....	Poorest Student.....	6	.....
Summary Numerical Rating			**Summary Numerical Rating**		

TOTAL NUMERICAL RATING.....

School marks to the present time have been general.—They have been vague characterizations of complex abilities and qualities. Our great need has been that of, first, telling the pupil and the home what traits are regarded as important by the school and the world at large, and secondly, providing a measurement of the pupil by the school on each of these traits. Thus it is in the mind of the writer that each teacher should rate each student at least once each year, perhaps each semester. For the purpose of vocational guidance, a file of such cards on a student would be invaluable. Thus if a student has four teachers, four cards of this kind are sent to the office of the principal each year. It is the first step in acquainting the vocational and educational counsellor with the pupil's personality.

Similarly with the home. The parent is told "Your son or daughter is rated by the world at large, and so by the school, on just such qualities as these. The student is asked to rate himself on these qualities because it will tend to make him improve himself. Your hearty interest in this method will tend to make its use very effective." Doubtless one-third to one-half of the homes to which such a blank would go would be unable to understand certain portions of the form. Certainly the other half will understand, and some will be stimulated to a thorough discussion with the son or daughter of that home concerning the relation between school marks and specific qualities enumerated on the blank.

Several thousand of these rating cards for high-school students were distributed during the fall of 1919.[1] The purpose of their present distribution, and of this report, is to stimulate the development of such forms within local school systems; likewise, to secure experimental data of value on the rating of non-intellectual qualities. After the use of such scales in the ensuing months becomes more wide-spread, the writer will be able to publish, doubtless at the end of the year, a report which will show the advantages and disadvantages of the form, results obtained by the use of it in many school systems, and a revision of the form itself. In the meantime, what is needed most is individual experimentation within local systems. Administrators and teachers should work together on the development of their own rating forms or a trial of such

[1] They can be secured in quantities above 200 at 4 cents each; less than 200 at 5 cents each; samples 10 cents each, from the University of Chicago Bookstore, 5802 Ellis Avenue, Chicago, Illinois.

rating forms as are reported herewith. Some type of card should be developed for the elementary-school children. What is needed most is discussion—interchange of ideas concerning methods of bringing about self-improvement and methods of rating non-intellectual qualities.

II. RATING BY DIRECT COMPARISON

Note Form B of the scale. This consists of the rating scale proper. It is a scheme based upon the writer's experimentation with the Army Rating Scale, for the Committee on Classification of Personnel, October to December, 1918. Intensive experimentation concerning the validity of the Army Rating Scale was conducted in a number of camps. No expense was spared by the committee to render the study complete, scientific, and practical. More than six hundred officers were included in the whole investigation. Large groups of officers came together for three-day experiments, constructing rating scales under the direction of the writer and rating their associates with the most minute care. New forms of scales were experimented with and conditions of acquaintance, instruction, attitude of the co-operators, etc., were standardized in a way that doubtless will never be duplicated, unless, indeed, we have another war under which such conditions can be set up again. These facts are referred to in order to acquaint the reader with the basis for reporting the present scale for students.

The central idea of the scale, that of direct man-to-man comparison, was contributed by a group of workers under the general direction of Professor Scott, formerly director of the Bureau of Salesmanship Research in the Carnegie Institute of Technology. Its modification and adaptation to school practice is the work of the writer, and is based upon the experimentation just referred to.

The new scale reports a method of giving a person a numerical rating (116, 132, 74, etc.) of which the reliability is definitely known, and with which other ratings can be directly compared. Furthermore, it is a rating which cannot be confused with the commonly used percentage marking system of the public schools. This scheme provides a method of rating by which a student is rated on five groups of qualities by being compared directly with five other students, whose names have been assigned definite positions on the scale. These five persons are selected so as to represent respec-

tively (1) the best student the rater has ever known; (5) the poorest; (3) the representative average student; (2) the person midway between the best and the average; (4) the one midway between average and the poorest. A definite number of points is assigned to each of these five positions on the scale; for example: 38, 30, 22, 14, 6, respectively. Thus a person is given a single numerical rating by totaling the points he is given on each of the five groups of qualities.

The scale is so constructed that a student who represents "average" in each will receive a score of 110; one who represents "best" in each will receive a score of 190; and the one who represents "poorest" will receive a score of 30. On the Army Rating Scale, the numbers were 15, 12, 9, 6, and 3. The range, therefore, was 20 to 100, because the values for one of the five groups of qualities were 40, 32, 24, 16, and 8. Our experimentation showed that the numerical range needed to be extended—hence the new scheme.

How to Construct a Rating Scale

FORM B

A. Two important facts:

1. It is very difficult to make a rating scale properly. A scale cannot be constructed in less than two or three hours, and ought to be based on eight to ten hours' work.

2. Once made, the scale needs but little modification from year to year.

B. Necessary steps in the construction of a scale.

There are three major steps in constructing a rating scale.

First step.—Write down a list of 25–30 students ranging from the very best to the very poorest in your acquaintance, for each of whom you can answer the questions of Form A of the Rating Card.

Important: The list must *not* contain less than 25 names. It must contain some *very* poor students, some *very* good students, and a considerable number of "average" students.

Second step.—Arrange this list in rank order of merit from the "best" to the "poorest," *separately for each of the five groups of qualities.*

Important: In ranking persons for one group of qualities (say ability to learn), the other groups of qualities must be absolutely ignored. The arrangement of the list in rank order is *the most difficult and important single step in the construction of a rating scale.* Experimentation has shown that to do it successfully, the most effective method is as follows:

1. Locate each person in the list in one of three groups for each question in each group of qualities on Form A. A study of this checking should enable you to rearrange the students on your original list in from three to five groups.

2. Next, therefore, group the students on the original list in at least three and, if possible, five groups—say put in one group the few who are markedly "best"; in another, the few who are clearly "poorest"; and the remainder in a third group

who exhibit various degrees of "mediocrity." If the large mediocre group can next be separated into two or three groups, it will facilitate the next step, viz.:

3. Rearrange the persons in each group so that they stand in exact rank order. This will be most difficult to do in connection with the "average" groups.

4. Complete the final "rank order" arrangement of the entire list by comparing the students near the limits of the adjacent groups, e.g., further direct man-to-man comparison may result in interchanging individuals from, say, a "better than average" to an "average" group.

When the original list is finally arranged in the rank order, you are ready for the

Third step.—Select five persons to occupy the five positions on the scale in each group of qualities. Do this as follows: (1) Make a final decision as to which of the two or three persons in the "rank order" list is really the "best" one you ever knew *and can now use* for purposes of scale-comparison. (2) Select in same way the "poorest" for the scale. (3) From the two or three who stand nearest the middle of the list, decide upon the best one to represent the "average" position on the scale. For (4) and (5) do the same with the ones to occupy the position half-way between the average and best, and half-way between average and poorest. These are called respectively "better than average" and "poorer than average."

Important: Experimentation and experience in the army has shown that the scale can be made properly only by carrying through these major steps *separately for each group of qualities on the scale.*

How to Rate Students on the Scale

The rating is to be made for one group of qualities at a time, giving each person a stated number of points for that quality. It is done by comparing the person's qualities directly with those of the others whose names appear on the scale. Visualize each one as vividly as possible, thus locating a person at a particular point on the scale. Be sure to give him the exact number of points that you think represents his position on the scale. The numerical values, 38, 30, 22, 14, and 6 have been selected to give you considerable opportunity to assign values *between* these set points. For example, in the long run nearly as many should receive 23 or 21 as 22, which is the "average" point of the scale.

Important: In case you are unable to decide clearly between the person you are rating and those whose names are on the scale, examine the results of checking the definitional questions in that group of qualities in Form A. This will enable you to compare them more concretely.

The *total rating* of a person is obtained by adding the number of points given him on each of the five groups of qualities, writing this in the compartment of the card left for the total rating at the lower right-hand corner.

Important: Scales for the rating of students should be made in group conference. All teachers who know the same set of students should come together and construct scales which will contain relatively the same names. *It is fundamentally important* that names assigned to particular scale-positions ("best," "average," "poorest," etc.) be the same on the scales of different teachers. Otherwise the numerical ratings made against these scale-positions by various teachers may not closely agree. If teachers, in conference, can agree on the names of students to go on the scales, numerical ratings made against these will have very great reliability.